

## Important emergency information

Please read and **keep this guide**. It includes **new** and revised information for you that is federally required.



Get the Xcel Energy  
Nuclear Planning App

Available for Android and Apple at:



xcelenergy.com | © 2016 Xcel Energy Inc. | Xcel Energy is a registered trademark of Xcel Energy Inc. | 16-08-141



Prairie Island Nuclear Generating Plant  
Emergency Planning Manager  
1717 Wakonade Dr. East  
Welch, MN 55089

PRESORTED  
STANDARD MAIL  
U.S. POSTAGE PAID  
TWIN CITIES, MN  
PERMIT NO. 26296



# 2017

# Prairie Island

Emergency Planning Guide and Calendar • For Wisconsin neighbors of Prairie Island Nuclear Generating Plant

## Important emergency information

Please read and keep this guide. It includes **new** and revised information for you that is federally required.



Get the Xcel Energy  
Nuclear Planning App

Available for Android and Apple at:



# Prairie Island

2017 Emergency Planning Guide and  
Calendar for Wisconsin neighbors of  
Prairie Island Nuclear Generating Plant

## Important emergency Information

**Please read and keep this guide. It is updated annually and includes new and revised information for you that is federally required.**

Prairie Island Nuclear Generating Plant is owned and operated by Northern States Power Company (NSP) – Minnesota, an Xcel Energy Company. This guide is for people who live, work, or go to school within 10 miles of the nuclear generating plant. It provides information about radiation and instructions for what to do in the unlikely event of an incident. Keep it handy so you can find it easily in case of an emergency.

### What do you do in case of an emergency?

The best way to be safe in any emergency is to be prepared. Please read and save this information. Follow instructions, stay tuned to your local radio or television and remain calm.

### Keep Phone Lines Open

During an area-wide emergency, do NOT call Xcel Energy, local law enforcement or the fire department for information. They need clear phone lines for emergency calls. Instead use the emergency hotline number: **855.582.3993**.

### For more information:

**Visit our website:** [www.xcelenergy.com](http://www.xcelenergy.com)  
>> Search for Nuclear Safety

**Contact us by email:** [PINGP\\_EP\\_Manager@xenuclear.com](mailto:PINGP_EP_Manager@xenuclear.com)

### Or write us at:

Prairie Island Nuclear Generating Plant  
Emergency Preparedness Manager  
1717 Wakonade Drive East  
Welch, MN 55089

## Important emergency information

### Table of contents

Notification methods . . . . .	2
Evacuation information . . . . .	3
Evacuation route and reception center map . . . . .	4
Actions for school children . . . . .	5
Special assistance. . . . .	6
Shelter-in-place information . . . . .	7
Potassium Iodide (KI) . . . . .	8
Farmers, processors and distributors . . . . .	9-10
Prairie Island Emergency Planning Zone map . . . . .	11
Emergency planning and emergency classification levels . . . . .	13
Information on nuclear generating plants and radiation . . . . .	14-15
Preparedness summary . . . . .	16
Personal planning guide . . . . .	17
Potassium Iodide (KI) voucher . . . . .	32-33

### In the unlikely event of a nuclear generating plant accident, how would you be notified?

If the public needs to take shelter or evacuate, warning sirens will sound. Weather-alert radios will also activate and you will hear a message.

Listen for a steady siren tone lasting 3 minutes. In areas not served by sirens, slow-moving law enforcement vehicles will warn citizens using sirens and loudspeakers.

**Turn on your local radio or television station.** After the siren sounds, your local station will have instructions. Radio stations listed below will give up-to-the-minute information about what to do and where to go.

Each station is a member of the Emergency Alert System (EAS). This system allows local and state officials to interrupt local programming with emergency information. All stations listed below are on the air 24 hours a day, 7 days a week.

KCUE Red Wing 1250 AM  
KWNG Red Wing 105.9 FM  
WCCO Minneapolis 830 AM  
KNOW (MPR) St. Paul 91.1 FM  
KDWA Hastings 1460 AM

If a siren is activated for an incident at the nuclear generating plant, an EAS message will be broadcast immediately by local stations.

Siren tests are conducted the first Wednesday of each month at 1 p.m. If you have concerns that a siren did not sound when it should have, or has somehow malfunctioned, please call your local emergency manager. Numbers are listed on page 18 in this guide.

In addition to the monthly first Wednesday siren test, the sirens will be periodically tested to ensure maximum siren availability. During these tests, you may hear sirens activate for 10-15 seconds. This short activation is part of maintenance testing. These brief tests will typically be done on Wednesdays but may also be performed at other times such as well after a severe storm has passed to check for any damage to the sirens.

Remember, a siren alert signal will last for a full 3 minutes, and maintenance testing may last from 10-15 seconds.

## Emergency Notification Systems

Pierce County's Emergency Notification System is a high volume-high speed communications service available for mass emergency notifications. Residents and businesses are able to add or update their contact information to ensure they will be included when a message is sent for all hazards notifications, to include the unlikely event of a nuclear power plant incident. The system allows for unlisted and cellular numbers to be called for any valid Pierce County address.

For **PIERCE COUNTY** residents, you can have your information added into the system by going to the following website: <http://www.co.pierce.wi.us/>

For any further questions about the Pierce County emergency notification system please contact the Emergency Management office at 715.273.6751.

**WHEN YOU HEAR A SIREN, LOUDSPEAKER OR WEATHER — ALERT RADIO WARNING, GO INDOORS, TUNE TO A LOCAL RADIO OR LOCAL TV STATION. PLEASE DO NOT CALL LAW ENFORCEMENT AUTHORITIES. CHECK IN WITH YOUR NEIGHBORS TO ENSURE THEY HEARD AND UNDERSTOOD THE WARNING MESSAGE.**



# Evacuate

## What exactly should you do if asked to evacuate?

If you are asked to evacuate, follow instructions promptly. Don't panic. You will have time to pack a few personal items and secure your home as if you were going on vacation, unless radio instructions tell you otherwise.

All normal traffic laws will be maintained. Your local law enforcement agency will assist with evacuation.

Once you hear the evacuation order over the radio or television, follow the instructions given by local and state authorities.

- Close all doors and windows. Pack a few personal items and prepare your home as if you were leaving on vacation.
- Position the **“NOTIFIED”** sign found in the back of this brochure to an easily seen front window, door or mailbox so authorities will know you have evacuated.
- Assist neighbors, if possible, if they need transportation out of the area.
- Follow radio instructions to evacuate to the emergency reception center or as directed in the EAS message.
- See the evacuation route map for directions to the reception center in your state.
- Drive the most direct route to proceed to the reception center.

## If you have to evacuate, what should you take along?

Take the following items:

- Prescription medicines
- Baby formula and diapers
- Cash, credit cards, checkbook and photo identification
- Two changes of clothing per person
- Portable radio and flashlight, both with working batteries
- First-aid kit
- Potassium Iodide (KI) if you have it already
- Pillows, sleeping bags and personal hygiene items
- Household pets, cages and supplies (food)
- Wet cloths or towels

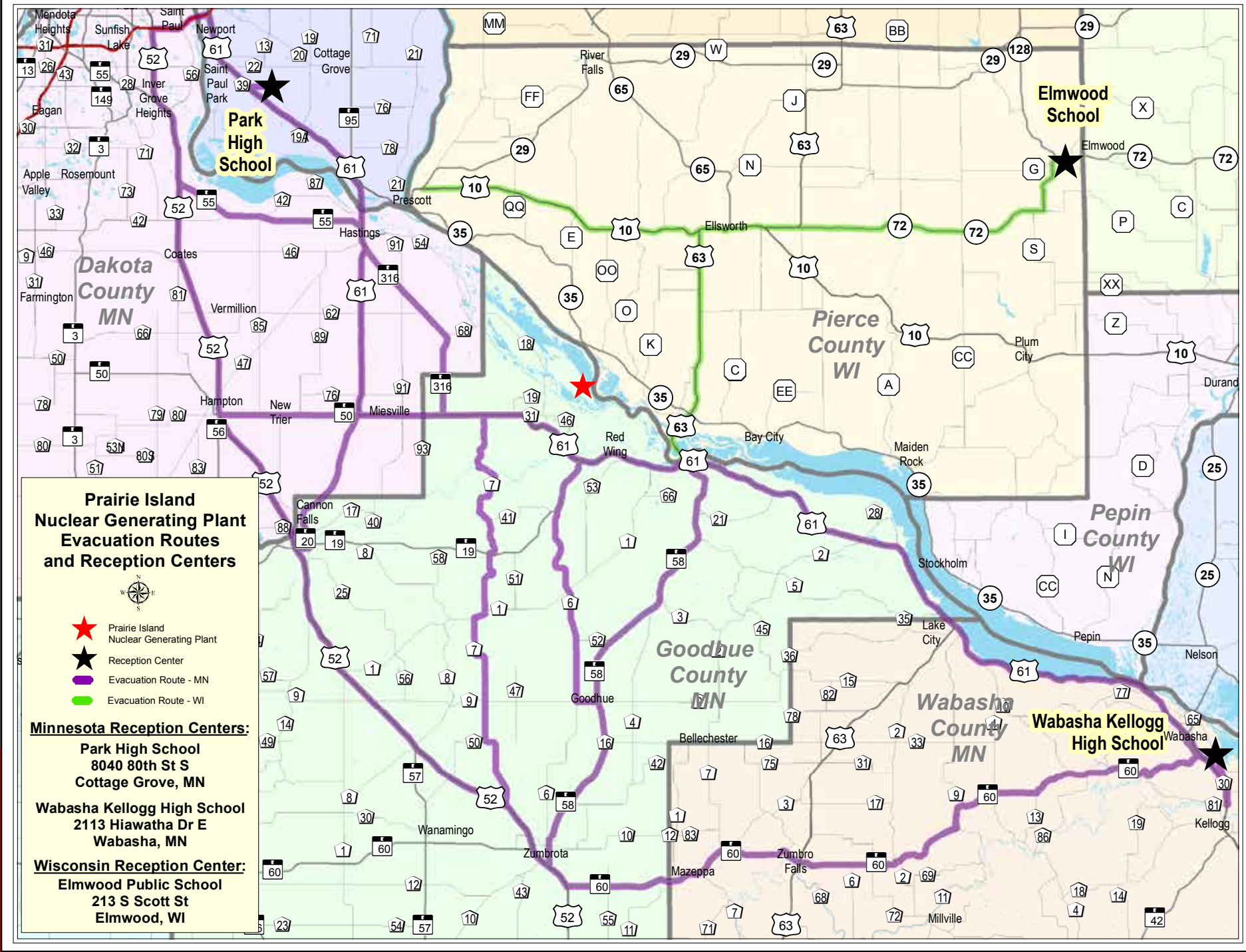
## If instructed to evacuate, check before you leave:

- Shut windows and close blinds and draperies.
- Prepare your home as if you were going on a vacation.
- Check your home for security – lock doors, windows, etc.
- Position the **“NOTIFIED”** sign found in the back of this brochure in an easily seen front window or door or tie something white on the front door of your home or your mailbox.
- Assist senior adults or mobility disabled neighbors, if possible, with evacuation.
- Place pet in a portable cage and evacuate with family.

## Where can you stay after evacuating?

After registering at the emergency reception center:

- You can stay with a friend or relative outside of the affected area.
- You can stay at an American Red Cross shelter (congregate care center).



What if children are in school during evacuation?

In the case of evacuation, children and teachers will be taken directly to a school outside the 10-mile Emergency Planning Zone (EPZ) called a sister school. The EPZ is explained on pages 11 and 12.

At the sister schools, children will be fed, sheltered and supervised until parents come for them. Public information announcements will tell parents where the sister schools are located. Please do not disrupt evacuation procedures by going to your child’s school.

Be sure your children understand evacuation procedures and know you will meet them at the sister school location.

School		Sister School
<b>Ellsworth School District</b> Lindgren School Prairie View Elementary	➡	<b>Spring Valley High School</b> S1450 County Road CC Spring Valley, WI 54767
<b>Red Wing School District</b> Burnside Elementary Colvill Family Center St. John’s School Sunnyside Elementary	➡	<b>Hastings Middle School</b> 1000 West 11th Street Hastings, MN 55033
<b>Red Wing School District</b> Red Wing High School River Bluffs Education Center Twin Bluff Middle School Tower View Alternative School	➡	<b>Hastings Senior High School</b> 200 General Sieben Drive Hastings, MN 55033

What if children live within the 10-mile EPZ, but attend school outside the 10-mile EPZ?

Children who live within the 10-mile Emergency Planning Zone, but attend school outside of the 10-mile EPZ, will not be bused home during an emergency. Parents should pick them up at their current school.

What about evacuating senior adult, mobility disabled, deaf or hard of hearing or blind?

Local emergency management officials will help people unable to evacuate on their own. If you know someone who is a senior adult, mobility disabled, deaf or hard of hearing, blind, or someone without a car, or if you need help, **fill out and send in the enclosed registration card**. Don’t wait for an emergency to ask for help. Xcel Energy will forward the card to local authorities. This information will remain confidential in keeping with the Minnesota and Wisconsin data privacy requirements. Local emergency officials will put you on a list to make sure you get help during an evacuation. For more information, please call your area emergency management director. Directors’ phone numbers are on page 18.

Will financial losses by the public be reimbursed?

Efforts will be made to establish an insurance claims office within 48 hours after declaration of a General Emergency. Area residents and property owners will be eligible for reasonable emergency related expenses that result directly from the nuclear accident for an authorized evacuation or shelter-in-place. Reimbursements will be made for immediate and reasonable out-of-pocket living expenses, such as food, lodging, transportation (mileage), lost wages and emergency medical treatment. There also will be coverage for bodily injury and property damage. Media announcements will give locations of insurance claims offices.

How will you know when you can return to your home or farm?

Public officials will tell you when it is safe to return to your home or farm. You will get instructions explaining how long you can remain, routes to travel, safety precautions and ways to remove contamination from your property, if necessary.

Specific instructions will depend on weather conditions and the distance of your home, farm, or facility from the commercial nuclear generating plant.





# Shelter-in-place

## What exactly should you do if told to take shelter?

- Go indoors and stay inside.
- Close all outside doors and windows.
- When requested turn off all air conditioning, furnaces, fire-places or ventilating devices that might draw in outside air. Use electrical sources for alternative heating as needed.
- If possible, go to the basement and take a radio with you.
- Locate your supply of KI and wait for instructions.
- Listen to your radio or television for further instructions. Radio and television reports will provide the status of the emergency.
- Do not leave your shelter or evacuate unless told to do so.
- Keep family and pets inside.
- If you must go outside to warn a friend or family member, limit your time to an hour or less. Cover your mouth and nose with a wet cloth while you are outside. If you must go outside and are exposed to a radioactive release, go inside, remove your clothing, place it in a plastic bag, and take a shower.

- Do not eat any outdoor food such as wildlife, wild edibles (plants, fruit, berries, mushrooms and seeds), poultry, eggs, dairy products or garden produce until instructed by authorities.
- While sheltering, prepare evacuation items for you and your pet(s).

## What about Sheltering-in-Place for a senior adult, mobility disabled, deaf or hard of hearing or blind person?

If you know someone who is a senior adult, mobility disabled, deaf or hard of hearing, blind, or if you need help, **fill out and send in the enclosed registration card.**

Contact the emergency numbers and hotlines listed on page 18.



# Using Potassium Iodide (KI)

## How can potassium iodide (KI) protect me and my family, and how do I obtain it?

Potassium iodide, known by its chemical symbol KI, is an over-the-counter medication. In the unlikely event of a serious nuclear plant emergency, KI is a supplemental protective action to evacuation and sheltering-in-place. It reduces the risk of thyroid cancer from exposure to radioactive iodine. Radioactive iodine could be among the materials released in a severe emergency.

KI protects only the thyroid gland from exposure to radioactive iodine. It does not protect any other part of your body, and it does not provide protection from other forms of radiation.

The State of Wisconsin is making potassium iodide (KI) tablets available free of charge to every household, school, daycare facility and place of business within the 10-mile emergency planning zone around the Prairie Island Nuclear Generating Plant.

To obtain KI simply complete the appropriate attached voucher at the back of this brochure and take it to the pharmacy at a participating Target Store listed on the voucher pages. This is a KI pre-distribution program and is only available during non-emergency times. Should an emergency occur at the alert level or higher, KI distribution at the participating pharmacies will be stopped.

Parents with children in daycares must complete an authorization form for KI to be administered to their children in the event of a nuclear emergency. Contact your dependent care provider for information about KI authorization.

## What about children in school obtaining KI?

Each school district within the ten-mile EPZ has decided to stockpile KI onsite. Check with your school administration or nurse to ensure that you have completed the necessary medical consent forms for your child(ren) so KI can be administered in the unlikely event of an incident at the nuclear generating plant.

## When do I take potassium iodide (KI) and in what dose?

During a General Emergency declaration at a nuclear generating plant, the State of Wisconsin will alert people within the affected area of the ten-mile EPZ when to evacuate or shelter-in-place AND take KI.

Information will be given about self-administering KI in accordance with FDA approved dosage guidelines, which were provided by the manufacturer with the doses. General guidelines are:

- Adults, women who are breastfeeding and children who are adult size (greater than or equal to 150 pounds) should take 130 mg (two 65 mg tablets).
- Children between 3 and 18 years of age and less than 150 pounds should take 65 mg.
- Infants and children between 1 month and 3 years of age should take 32 mg (1/2 of a 65 mg tablet). This dose is for both nursing and non-nursing infants and children.
- Newborns from birth to 1 month of age should be given 16 mg (1/4 of a 65 mg tablet). This dose is for both nursing and non-nursing newborn infants.

**Evacuation is the primary protective action in the event of an emergency. People within the EPZ who have the capability of evacuating should follow the evacuation instructions given at the time of the emergency. Residents should not delay evacuation in order to locate their supply of KI.**

A recommendation to take KI will be issued if the plant declares a General Emergency. That recommendation will be communicated through media releases and advisories, the Emergency Alert System (EAS), radio and television stations.

For **Additional Information** on the health effects and distribution of KI, call the Wisconsin Department of Health Services’ Radiation Protection Section (RPS) at **608.267.4797**. Information on the use and affects of KI can be found on the following website: **<http://www.bt.cdc.gov/radiation/ki.asp>**.

**WARNING: PEOPLE SHOULD NOT TAKE KI IF THEY ARE ALLERGIC TO IODINE, HAVE DERMATITIS HERPETIFORMIS OR HYPOCOMPLEMENTEMIC VASCULITIS, OR HAVE NODULAR THYROID DISEASE WITH HEART DISEASE. CONSULT WITH YOUR PHYSICIAN IF YOU HAVE FURTHER QUESTIONS OR CONCERNS.**

# Actions for Farmers, Food Processors and Distributors in Case of a Nuclear Generating Plant Accident

## Protective Actions:

### Livestock

Remove livestock from pasture, shelter them in an enclosed facility, and limit the entry of outside air and water from rain or surface water. Provide feed and water from protected sources. If you cannot shelter them completely, use a shelter that provides as much protection as possible from outside air and rainwater or surface water.

If livestock inhale contaminated air, or consume contaminated water or feed, the contaminants could enter the human food supply through milk or dairy products. Do not drink fresh milk or consume any dairy products from cows or goats until laboratory results are available. Government officials may come to your farm to take milk, feed and water samples for laboratory analysis.

If dairy products are found to be contaminated, state or local officials will recommend specific actions based on the type and amount of contamination.

### Poultry and Poultry Products

Poultry raised indoors and given protected feed and water are not likely to be contaminated. For poultry raised outdoors, state and local officials will advise what actions to take.

### Fish and Wildlife

State and local officials will monitor fish (in lakes, rivers, ponds, and hatcheries) and wildlife to determine if they can continue to be harvested. Fish and wildlife samples will be collected and analyzed. Recommendations will be made based on the sampling results.

### Water

Protect open water sources. Cover rain barrels and tanks. Covered wells and other covered underground water sources require no protective actions. Disconnect fill pipes from storage containers supplied by surface runoff.

### Commodity and Specialty Crops (i.e., soils/sod, grains, honey, berries, etc.)

Most contamination on standing crops can be removed by wind and rain. Don't move or harvest commodity or specialty crops. These will be tested to determine if there is contamination. Recommendations will be made based on the testing results.

### Food Processors and Distributors

Government officials may restrict the movement of food products and withhold them from the marketplace until sampling analysis is completed. Officials may instruct you to hold raw food products for sampling before processing. Officials will issue instructions on the safe handling and disposition of contaminated food products.

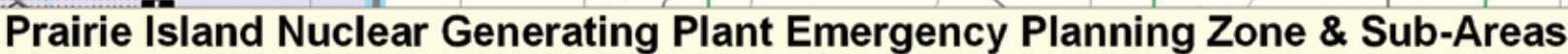
The local Emergency Management Office, Extension Service, State Department of Agriculture, Farm Service Agency (FSA), and state and local health departments will work with farmers and farm organizations to determine whether products are safe for marketing.

### For more information, read the booklet “Wisconsin Radiological Emergency Information for Farmers, Food Processors, and Distributors”

Your agricultural extension service office can provide copies if you would like one.







A nuclear generating plant emergency could affect an area varying from the immediate plant site itself to many square miles around the plant. The hazard would be from radioactive gases or radioactive materials the wind could carry from the plant.

The map above shows the 10-mile Emergency Planning Zone (EPZ) around the Prairie Island Nuclear Generating Plant. The EPZ is divided into subareas based on familiar landmarks such as highways, roads, rural townships, etc. In the unlikely event of an accident involving radioactive releases from the plant, EAS radio and television stations will describe the areas where residents should take action to evacuate or shelter-in-place.

## Prairie Island Individual Sub-Area Descriptions

2	Goodhue County residents in the portion of Red Wing within 2 miles of the Prairie Island Nuclear Generating Plant. This INCLUDES those residents north of County Road 46 and south of the Mississippi River. This INCLUDES the Prairie Island Indian Community, but DOES NOT INCLUDE the downtown section of Red Wing.	10NE	Pierce County residents in portions of the Town of Trimble east of County Road O. Portions of the Town of Ellsworth west of County Road C. This DOES NOT INCLUDE the Village of Ellsworth.	10W	Dakota County residents in all of Ravenna Township. Portions of Marshan and Douglas Townships east of County State Aid Highway 91 (Nicolai Avenue) and Michael Avenue, INCLUDING the town of Miesville.
	Pierce County residents in the portion of the Town of Diamond Bluff, south of State Highway 35.	10E	Pierce County residents in portions of the Town of Trenton east of US Highway 63, and all of the Town of Isabelle, INCLUDING the Village of Bay City. Portions of the Town of Hartland west of 620th Street, south of County Road EE, and west of County Road D.	10NW	Pierce County residents in portions of the Town of Oak Grove west of County Road E. This DOES NOT INCLUDE the City of Prescott.
5N	Pierce County residents in the Town of Diamond Bluff north of State Highway 35.	10SE	Goodhue County residents in Red Wing east of Bench Street (County Road 1), INCLUDING the downtown section. Goodhue County residents of Wacouta Township west of Flower Valley Road. Residents of Hay Creek Township west of Flower Valley Road and County Road 45, and north of Old Church Road (315th Street). Residents of Featherstone Township north of State Highway 58 and 325th Street.	<h3>Emergency Planning Zones</h3> <p>Two types of planning zones may be referred to in an emergency:</p> <p><b>Emergency Planning Zone (EPZ)</b> is the area within a 10-mile radius around the nuclear generating plant in which people may be directly exposed to radiation.</p> <p><b>Ingestion Pathway Zone (IPZ)</b> is the area within a 50-mile radius around the nuclear generating plant in which people may be indirectly exposed to radiation by eating or drinking contaminated food, milk and water.</p>	
5E	Pierce County residents in the portions of the Town of Trenton, west of US Highway 63, INCLUDING the Village of Hager City.	10SW	Goodhue County residents in the portions of Vasa Township north of 325th Street and 315th Street, INCLUDING the Village of Vasa. Residents in the northeast corner of Cannon Falls Township north of State Highway 19 and east of Sunset Trail and the Cannon River.		
5S	Goodhue County residents in the portion of Red Wing west of Bench Street (County Road 1). This area DOES NOT INCLUDE the downtown section of Red Wing.				
5W	Goodhue County residents in all portions of Welch Township, INCLUDING the Village of Welch.				
10N	Pierce County residents in portions of the Town of Oak Grove east of County Road E. Portions of the Town of Trimble west of County Road O.				

## Emergency Planning Zones

Two types of planning zones may be referred to in an emergency:

**Emergency Planning Zone (EPZ)** is the area within a 10-mile radius around the nuclear generating plant in which people may be directly exposed to radiation.

**Ingestion Pathway Zone (IPZ)** is the area within a 50-mile radius around the nuclear generating plant in which people may be indirectly exposed to radiation by eating or drinking contaminated food, milk and water.

# Emergency planning and emergency classification levels

## Why do we need emergency plans?

If a serious accident were to occur, plant staff and local and state officials need to follow an established and tested plan to get information quickly to the public. The plan includes local and state officials, emergency management officials, law enforcement authorities and local radio and television stations.

## What will plant staff and state officials do during an emergency?

During an emergency, nuclear plant staff will work to shut down the plant to prevent, or minimize, any release of radioactivity. Xcel Energy will immediately inform state and county officials about the emergency.

Both Xcel Energy and state personnel will monitor radiation levels. State emergency management and health departments will assess the situation and give radio and television stations emergency instructions for the public.

People might be advised no danger exists or that they should shelter-in-place or evacuate. The local sheriff could order an evacuation earlier if there is an immediate threat to public health and safety.

## Are there different levels of emergency?

Yes, four emergency classification levels are used by offsite response organizations and all nuclear generating plants in the U.S. The classifications address issues such as rising river levels to an emergency involving residents around the plant site. The four classifications are **Notification of Unusual Event, Alert, Site Area Emergency and General Emergency**, the latter being the highest level.

**Emergency classification level descriptions:**

**Notification of Unusual Event** – A low level event which poses no threat to public safety but which warrants an increased awareness on the part of plant and off-site agency personnel.

**Alert** – Also a low level condition which poses no threat to public safety, but precautionary mobilization of certain response functions is appropriate in case conditions degrade.

**Site Area Emergency** – At this level, conditions have degraded to a point warranting the full activation of response functions. Precautionary protective actions for high risk portions of the general public might be recommended.

**General Emergency** – Conditions have degraded to a point threatening public safety and some form of protective actions will be initiated.

If emergency action is needed, plant neighbors will be notified immediately. The county sheriff will sound sirens to warn you to tune to local EAS radio or television stations.

There are other post-sheltering/evacuation phases of a nuclear plant emergency:

**Re-entry** is the temporary, controlled entry into a restricted area. If your farm or business is in the evacuated or restricted area, you may be allowed to return to your farm or business temporarily when conditions permit, to tend to your operations. State or local government officials will use the media to advise you if reentry is permitted and the process to enter. Specific instructions will be given on routes, entry points, identification requirements and safety precautions in effect

**Relocation** is the removal or continued exclusion of people (households) from contaminated areas to avoid long-term exposure to low-level radiation.

- The initial post plume priority will be to examine areas that have not been evacuated, determining whether contamination levels necessitate relocation.
- The next priority will be to survey contamination levels in evacuated areas, gauging the possibility and timeline for safe return to areas where safe reoccupation can occur.

**Return** is the reoccupation of areas for unrestricted residence, or resumed use, by previously evacuated or relocated populations and businesses.

**Recovery** is the “cleanup” after a nuclear emergency to acceptable levels for normal daily living. It is the way we reduce radioactive materials in the environment to acceptable levels. Officials will tell you how to decontaminate your animals, food and property, if necessary. State and local officials will take samples of air, water, soil, crops and animal products from your farm or business. If contamination is found, they will provide you with specific instructions, and assist you in decontamination procedures. Contaminated food will be isolated to prevent its entry into the marketplace. State officials will determine if condemnation and disposal are necessary.

You will be compensated for losses suffered as a result of a nuclear generating plant accident. Carefully document all losses you incur.

# Information on Nuclear Generating Plants and Radiation

## How does a nuclear generating plant create energy?

Nuclear generating plants produce electricity much the same way as fossil-fuel generating plants. Both create steam to spin a turbine and drive an electric generator. The major difference is nuclear power’s method of making heat. At nuclear plants, a nuclear reactor takes the place of a combustion boiler. The heat that produces steam comes from energy released during fissioning (splitting the atoms) of uranium fuel, rather than from burning a fossil fuel, such as coal. A controlled nuclear chain reaction takes place in the reactor as neutrons from one splitting atom strike other atoms, causing them to split and release heat energy. Control rods regulate the chain reaction.

## What kinds of protection does a nuclear power plant offer?

A series of barriers and safety systems within the plant keeps radioactivity inside during normal operations. The building that contains radioactive fuel and the reactor has 3 1/2 foot-thick concrete and steel walls and thick concrete and steel flooring. The concrete building and steel containment lining act as a barrier. It surrounds the reactor and other equipment in contact with highly radioactive materials. The containment structure extends well below the ground. The reactor vessel, where fission takes place, is a thick steel cylinder that contains the fuel assemblies.

All nuclear plants, including Monticello and Prairie Island, are conservatively designed and built with many safety systems and emergency back-ups. Commercial nuclear plants are among the most formidable structures in existence. A 2002 study using computer modeling by internationally recognized experts found the structures which house nuclear reactor fuel would protect against a release of radiation even if struck by a large commercial jetliner.

## How likely is an emergency?

The chances of a serious nuclear plant emergency are remote compared with the chances of a hazardous chemical spill or a natural disaster, such as a tornado or flood.

U.S. nuclear generating plants have had a remarkable safety record during the last 35 years. No member of the public has been harmed physically as a result of an accident, and it is unlikely that Xcel Energy’s Monticello or Prairie Island plants will change that record.

## Can a nuclear plant blow up like a bomb?

No. A nuclear plant cannot explode like a bomb. Nuclear plants do not have enough of the right concentration of radioactive material to produce a nuclear explosion.

## What is radiation?

Radiation is energy emitted in tiny waves or particles. You can’t see, hear or taste radiation.

For these reasons, people sometimes think radiation is mysterious or frightening. We know a great deal about it. Heat, light and radio waves are kinds of radiation. Rocks, trees and even you have some radioactive atoms.

The atom, the basic building block of the universe, is the universal source of radiation. All things are made of atoms.

All atoms are made of even smaller particles: protons, electrons and neutrons. These particles are joined tightly together. Any time this bond is broken, energy is released. This energy is called radiation.

Radiation sometimes produces charged particles in material it strikes. Charged particles are known as ions. Ionizing radiation is the type of radiation we are discussing in this guide. Ionizing radiation can produce charged particles in all matter.



What does ionizing radiation do to the human body?

A small amount of radiation entering the body might occasionally create cell damage, which the body can repair as it would any other cell damage.

Because of aging or disease, body cell-repair goes on all the time. But a very large dose of radiation will damage large numbers of the body’s cells faster than the body can repair them or produce new cells.

What about radiological contamination?

An area contaminated by radioactive materials after a radiological accident might present a long-term problem. The longer these materials remain in the soil, the more likely plants will absorb them. Then contaminated vegetables, fruit, grains and forage might enter the food chain of animals and people.

If there is any possibility your land is (or could become) contaminated, State and Federal emergency officials will test it and recommend long-term protective actions.

You can get more information from:

- State, tribal, county or local emergency management offices
- State Department of Health
- State Department of Agriculture
- Agricultural Extension Agents
- Farm Service Agency (FSA)
- Contact numbers on page 18.

How concerned should you be about radiation?

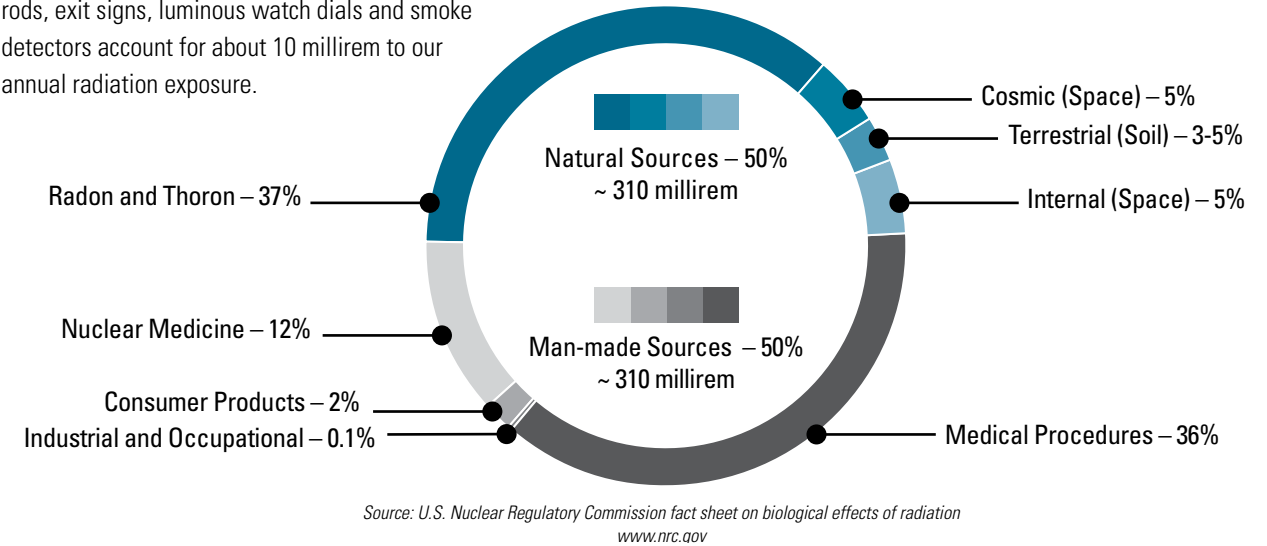
Government regulations limit the radiation dose the public can receive from nuclear generating plant-related operations to no more than 100 millirem a year above natural background levels. Xcel Energy nuclear generating plants have never approached the 100 millirem limit.

To put millirem into perspective, let’s look at a chart that shows sources and amounts of background and man-made radiation we live with every day. Commercial nuclear power plants are an extremely small source of public radiation as demonstrated in the graphic below.

How much average background radiation does the average citizen get?

On average, each of us receives about 310 millirem of radiation a year from natural background radiation sources, such as the earth and sky, and an additional 310 millirem from man-made sources.

The largest man-made source of exposure is medical procedures, such as x-rays and computed tomography (CT) scans. Consumer products such as tobacco, fertilizer, welding rods, exit signs, luminous watch dials and smoke detectors account for about 10 millirem to our annual radiation exposure.



No adverse health effects have been discerned arising from these levels of radiation exposure.

The pie chart shows a breakdown of radiation sources that contribute to the average annual U.S. radiation dose of 620 millirem.

Above background levels of radiation exposure, the Nuclear Regulatory Commission (NRC) requires that its licensees limit maximum radiation exposure to individual members of the public to 100 mrem per year, and limit occupational radiation exposure to adults working with radioactive material to 5,000 mrem per year. NRC regulations and radiation exposure limits are contained in Title 10 of the Code of Federal Regulations, Part 20.

Source: US Nuclear Regulatory Commission Fact Sheet on Biological Effects of Radiation found at: [www.nrc.gov/reading-rm/doc-collections/fact-sheets/bio-effects-radiation.htm](http://www.nrc.gov/reading-rm/doc-collections/fact-sheets/bio-effects-radiation.htm)

Summary

Are you prepared for any emergency?

Knowing what to do ahead of time helps you and your family be prepared for ANY emergency. **Save this guide and keep it in a convenient place.**

If you are a senior adult, mobility disabled, deaf or hard of hearing or blind, be sure to sign up for assistance by filling out the enclosed card and sending it to Xcel Energy.

Make sure all members of your family understand emergency plans and evacuation routes. Talk it over with your neighbors and friends. Some of them might need your help, or you might need theirs.

Be sure your children in school and day care centers understand evacuation procedures and know that you will meet them at the designated emergency center or sister school.

Use this checklist to be sure you are prepared.

Do you have these items?

- ☐ Prescription medicines
- ☐ Baby formula and diapers
- ☐ Cash, credit cards and checkbook
- ☐ Two changes of clothing per person
- ☐ Portable radio and flashlight, both with working batteries
- ☐ First-aid kit
- ☐ Potassium Iodide (KI)
- ☐ Pillows, sleeping bags and personal hygiene items
- ☐ Household pets, cages and supplies (food)
- ☐ Cloths or towels that can be wetted

If you hear the sirens:

- Go indoors.
- Turn on the radio or television and stay tuned to an EAS station for official information.
- Keep phone lines open; use only if absolutely necessary.
- Follow instructions and stay calm.
- Bring your pets indoors.

If instructed to take shelter:

- Do not evacuate your home; stay inside.
- Do not eat any outdoor food such as wildlife, wild edibles (plants, fruit, berries, mushrooms and seeds), poultry, eggs, dairy products or garden produce until instructed by authorities.
- Close all doors and windows.
- Turn off air conditioners, furnaces, fireplaces, ventilation fans and other air intakes. Use electrical sources for alternative heating.
- If possible, go to the basement and take a radio with you.
- While sheltering, prepare evacuation items for you and your pets.

If instructed to evacuate, check before you leave:

- Shut windows and close blinds and draperies.
- Prepare your home as if you were going on a vacation.
- Check your home for security – lock doors, windows, etc.
- Position the “NOTIFIED” sign found in the back of this brochure in an easily seen front window or door or tie something white on the front door of your home or your mailbox.
- Assist senior adults or mobility disabled neighbors, if possible, with evacuation.
- Place house pet in portable cage and evacuate with family.

Personal Planning Guide

Fill in these blanks now and go over this information with your family. Decide who would pick up school-age children at the host facility and where to meet if you were apart in an emergency. Be sure children know what to do if they are alone and sirens sound. Talk to your neighbors so you can help each other if necessary.

It is a good idea to keep some things handy in case of an emergency: portable radio, flashlight and extra batteries. Keep your car in good running order and don't let the gas tank get too low.

This will save time and avoid confusion in an emergency.

My best evacuation route is: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

My reception center is located at: \_\_\_\_\_

My school-age children will be taken to: \_\_\_\_\_  
\_\_\_\_\_

Prescription medications I will need: \_\_\_\_\_  
\_\_\_\_\_

Important papers I will need: \_\_\_\_\_  
\_\_\_\_\_

My local Emergency Management Office non-emergency number during regular business hours is: \_\_\_\_\_

My local Emergency Management Office emergency number is: \_\_\_\_\_

Pet-friendly hotels/motels: \_\_\_\_\_  
\_\_\_\_\_

Boarding facilities outside of my area: \_\_\_\_\_  
\_\_\_\_\_

Other things to remember: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

For information during an emergency,  
Wisconsin residents should call:  
Wisconsin Disaster Information Assistance Line  
(WI-DIAL) Hotline: 855-582-3993

In the Prairie Island plant area,  
you should call these numbers  
for non-emergency information:

**Dakota County**  
Emergency Preparedness Coordinator 651.438.4703  
University of Minnesota Extension Service Office 651.480.7745

**Goodhue County**  
Emergency Management Director 651.267.2640  
Extension Service Office 651.385.3100

**City of Red Wing**  
Emergency Management Director 651.267.2611

**Pierce County**  
Emergency Management Director 715.273.6751  
Extension Service Office 715.273.6781

**Prairie Island Indian Community**  
Emergency Management 651.385.4178  
Prairie Island Public Safety 651.267.4000

**Wisconsin Emergency Management**  
608.242.3232  
<http://emergencymanagement.wi.gov>

**Homeland Security and  
Emergency Management Radiological Preparedness**  
651.201.7434  
[hsem.rep@state.mn.us](mailto:hsem.rep@state.mn.us)





## Potassium Iodide (KI) Request Voucher Page

Fill out the appropriate voucher below and bring to the pharmacy at any of the following Target locations.

### Primary Wisconsin distribution location Hudson Target

2401 Coulee Rd.

Hudson, WI 54016

Hours: Mon.-Fri., 9 a.m. to 9 p.m.

Sat.-Sun., 9 a.m. to 6 p.m.

### Alternate Wisconsin distribution location Red Wing Target

151 Tyler Rd. N

Red Wing, MN 55066-1865

Hours: Mon.-Fri., 9 a.m. to 7 p.m.

Sat., 9 a.m. to 5 p.m.

Sun., 11 a.m. to 5 p.m.

### Cottage Grove Target

8655 E Point Douglas Rd. S

Cottage Grove, MN 55016-4035

Hours: Mon.-Fri., 9 a.m. to 9 p.m.

Sat.-Sun., 9 a.m. to 6 p.m.

For **Additional Information** on health effects and distribution of KI, call the Wisconsin Department of Health Services' Radiation Protection Section (RPS) at 608.267.4797. Information on the use and affects of KI can be found on the following Website: <http://www.bt.cdc.gov/radiation/ki.asp>.

**Note:** This is a KI pre-distribution program and is only available during non-emergency times. Should an emergency occur with a severity level Alert or higher, KI distribution at the participating pharmacies will be stopped.

**VOUCHERS LOCATED ON  
NEXT TWO PAGES**